AMENDMENTS TO THE SPECIFICATION:

Please amend the heading at page 1, line 3, as follows:

Technical Field of the ~~Invention~~ Technology

Please amend the paragraph beginning at page 1, line 5, as follows:

The present ~~invention~~ technology relates to an optoelectronic device, and in particular to a lasing device that can change an emitted wavelength at high speed.

Please amend the paragraph beginning at page 3, line 17, as follows:

Therefore, the present ~~invention~~ technology seeks to provide a tunable laser in which the problems of conventional tunable lasers are at least alleviated.

Please amend the paragraph beginning at page 3, line 23, as follows:

According to a first aspect of the ~~present invention~~ exemplary embodiment presented herein, there is provided a lasing device comprising a ring cavity, a coupling means for extracting laser emission from the ring cavity, and a frequency selection means in connection with the coupling means, wherein the frequency selection means is operable to feed back part of the extracted laser emission into the ring cavity and to select the frequency of the feedback signal, and the frequency selection means is not part of the ring cavity.

Please amend the paragraph beginning at page 4, line 1, as follows:

According to a second aspect of ~~the present invention~~ an exemplary embodiment, there is provided a method of changing a lasing frequency of a ring cavity laser, the method comprising

operating the ring cavity laser at a first ring cavity resonant frequency, wherein the first ring cavity resonant frequency substantially coincides with a first reflecting frequency of a frequency selection means, controlling the frequency selection means to change the first reflecting frequency to a second reflecting frequency, and operating the ring cavity laser at a second ring cavity resonant frequency, wherein the second ring cavity resonant frequency substantially coincides with the second reflecting frequency of the frequency selection means.

Please amend the paragraph beginning at page 4, line 15, as follows:

Furthermore, the frequency selection means of the ~~present invention~~ exemplary embodiment is not part of the ring cavity, i.e. , the ring cavity is close-looped and will work as a resonant cavity without the frequency selection means.

Please amend the paragraph beginning at page 4, line 20, as follows:

Advantageously, the tunable laser of the ~~present invention~~ exemplary embodiment emits precise, discrete wavelengths as determined by the cavity modes of the ring laser cavity. These modes are determined during laser manufacture and can be precisely trimmed to the accurate values required.

Please amend the paragraph beginning at page 4, line 26, as follows:

Further advantage is gained in that the lasing frequency tuning occurs at a high speed (potentially in the order of nanoseconds) Primarily, four factors contribute to achieving this high speed tuning. Firstly, a frequency selection means which operates at a high speed is used. Secondly, a lasing frequency lock-in time of the present invention is shorter than that of

conventional tunable lasers. Lasing frequency lock-in time refers to the time for an output frequency to stabilize to a predetermined value. Thirdly, only a single control variable needs to be determined in order to set an operating frequency for the tunable laser. Fourthly, after the initial lasing frequency lock-in time, the emitted frequency is no longer affected by possible long-term transience (such as thermal drift of the frequency selection means). In this way, the time required for the tunable laser to change between different emitted frequencies is minimized and also, phase matching components (as required in some SGDBR lasers) are not necessary. Furthermore, the preferred embodiments ~~of this invention~~ have a ring cavity circumference of a few millimetres in length, which is considerably shorter than that of conventional tunable fibre ring devices. Laser devices of this short cavity length are capable of high speed tuning owing to the short photon lifetime in the ring cavity.

Please amend the paragraph beginning at page 5, line 19, as follows:

For a better understanding of the ~~present invention~~ exemplary embodiment presented herein, and to show how it may be put into effect, reference will now be made, by way of example, to the accompanying drawings in which:

Please amend the paragraph beginning at page 5, line 24, as follows:

Figure 1A is a schematic diagram of a tunable laser in accordance with an embodiment ~~of the present invention~~;

Figure 1B shows a graph illustrating single mode laser operation of the tunable laser of Figure 1A;

Figure 2A illustrates an enlarged cross-section of an optical gain element of a first exemplary implementation ~~of the present invention~~;

Figure 2B illustrates a plan view of a ring cavity laser of a first exemplary implementation ~~of the present invention~~;

Figure 2C illustrates an enlarged cross-section of a grating element of a first exemplary implementation ~~of the present invention~~;

Figure 3A illustrates an enlarged cross-section of an optical gain element of a second exemplary implementation ~~of the present invention~~;

Figure 3B illustrates a plan view of a ring cavity laser of a second exemplary implementation ~~of the present invention~~;

Figure 3C illustrates an enlarged cross-section of an optical coupler of a second exemplary implementation ~~of the present invention~~;

Figure 3D illustrates an enlarged cross-section of a grating element of a second exemplary implementation ~~of the present invention~~; and

Figure 4 illustrates a ring cavity laser of a third exemplary implementation ~~of the present invention~~.

Please amend the paragraph beginning at page 13, line 32, as follows:

It will be apparent to the skilled person that the above described implementations ~~of the invention~~ are not exhaustive and variations on these structures may be employed to achieve a similar result whilst employing the same ~~inventive~~ concept. Individual elements within each implementation can be replaced with any element or combination of elements which performs a similar function. For example, the grating element may be replaced with any suitable multi-

frequency band filter. Further, the positions of the optically passive layer and the optically active layer may be interchangeable in some implementations (similar to the second implementation of the present invention). Consequently the fabrication process would need to be adapted. Furthermore, it is also possible to implement non- waveguide forms of the invention, in which one or more of the ring laser cavity, the output coupling mechanism, the optical gain element, or the frequency selection means are not formed in waveguides

Please amend the paragraph beginning at page 14, line 16, as follows:

It can therefore be seen that the ~~present invention~~ exemplary embodiment presented herein provides a tunable lasing device which has significant advantages over conventional devices.